



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/031,928	06/10/2002	Frederick James Moss	6540	8099

7590 09/09/2004

Arlene J. Powers  
Gauthier & Connors LLP  
225 Franklin Street  
Suite 3300  
Boston, MA 02110

EXAMINER

MACARTHUR, VICTOR L

ART UNIT PAPER NUMBER

3679

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/031,928

Applicant(s)

MOSS ET AL

Examiner

Victor MacArthur

Art Unit

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/1/2004 has been entered.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 and 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Fox (U.S. Patent 4,815,896).

Claim 1. Fox discloses (figs. 5 and 6) an anti-scaling device comprising a hollow central body portion (8, 9) mounted on a bar (cable, col. 1-2) for rotation around a transverse axis (cable axis), the bar passing through the hollow central body portion along the transverse axis, and several spike units (4) extending outwardly from the body portion in different directions wherein the spike units are rotatably mounted (screwing, col. 1, ll. 25-30) on the central body portion around axis non-congruent (perpendicular) with the transverse axis.

Art Unit: 3679

Claim 2. Fox discloses that the spike units are detachably mounted (screwing, col.1, ll.25-30) on the central body portion.

Claim 3. Fox discloses that there are pairs of spike units (4 as seen in fig.6) disposed in a diametrically opposed relationship relative to the central body portion.

Claim 4. Fox discloses that the central body portion has spigots (13) for mounting the spike units.

Claim 7. Fox discloses (fig.7) that rows of sharp-edged teeth (4) are axis aligned along the central body portion.

Claim 8. Fox discloses (fig.6) that the spike units (4) are in the form of partially rotatable serrated propellers (within the broadest reasonable interpretation of the claim language).

Claim 9. Fox discloses that the spike units are pivotably mounted (screwing, col.1, ll.25-30).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 5, 6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Francis (U.S. Patent 4,739,970) in view of Fox (U.S. Patent 4815896).

Claim 1. Francis discloses (figs.1 and 6) an anti-scaling device comprising a hollow central body portion (34) mounted on a bar (36) for rotation around a transverse axis (central axis

Art Unit: 3679

of bar), the bar passing through the hollow central body portion along the transverse axis, and several spike units (6) extending outwardly from the body portion in different directions wherein the spike units are rotatably mounted on the central body portion around an axis. Francis does not disclose that the spike unit rotation axis is non-congruent with the transverse axis. Fox teaches (fig.5 and 6) a spike unit rotation axis (axis of 13) that is non-congruent with a transverse axis (axis through 8 and 9). The Fox non-congruent axis allows for the accommodation of spikes in a greater number of directions (e.g. four directions rather than two). It has generally been recognized that the rearranging of parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70. Accordingly, it would have been obvious to one of ordinary skill in the art to modify the Francis axis to be non-congruent, as taught by Fox, for the purpose of allowing for spikes in a greater number of directions, and additionally since such practice is a design consideration within the skill of the art.

Claim 5. Francis discloses serrated webs (26) extending outwardly from the central body portion between the spike units.

Claim 6. Francis discloses that the serrated webs extend along radial axis displaced 45 degrees from the radial axis of the spike units (as seen in fig.1).

Claim 10. Francis discloses that the device is moulded from a plastic material (col.4, ll.4-8).

### ***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new grounds of rejection.

Art Unit: 3679

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor MacArthur whose telephone number is (703) 305-5701.

The examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (703) 308-2686. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.



VLM

August 26, 2004



JOHN R. COTTINGHAM  
PRIMARY EXAMINER